

EZ Connect[™] 2.4 GHz Wireless Ethernet Adapter

User Guide

SMC2671W

EZ Connect™ 2.4 GHz Wireless Ethernet Adapter User Guide

From SMC's EZ line of low-cost workgroup LAN solutions

SMC®

Networks

38 Tesla

Irvine, CA 92618

Phone: (949) 679-8000

November 2003
150000024600E R01 F1.0

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COMPLIANCES

FCC - Class B

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with instructions, may cause harmful interference to radio communications. However, there is no guarantee that the interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient the receiving antenna
- Increase the separation between the equipment and receiver
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected
- Consult the dealer or an experienced radio/TV technician for help

FCC Caution: To assure continued compliance, (example - use only shielded interface cables when connecting to computer or peripheral devices) any changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate this equipment.

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

IMPORTANT NOTE: FCC Radiation Exposure Statement

FCC Radiation Exposure Statement: This equipment complies with FCC radiation exposure limits set forth for an uncontrolled environment. This equipment should be installed and operated with a minimum distance of 20 centimeters (8 inches) between the radiator and your body. This transmitter must not be co-located or operating in conjunction with any other antenna or transmitter.

Industry Canada - Class B

This digital apparatus does not exceed the Class B limits for radio noise emissions from digital apparatus as set out in the interference-causing equipment standard entitled "Digital Apparatus," ICES-003 of the Department of Communications.

Cet appareil numérique respecte les limites de bruits radioélectriques applicables aux appareils numériques de Classe B prescrites dans la norme sur le matériel brouilleur: "Appareils Numériques," NMB-003 édictée par le ministère des Communications.

EC Conformance Declaration C€0560❗

SMC contact for these products in Europe is:

SMC Networks Europe,
Edificio Conata II,
Calle Frutuós Gelabert 6-8, 2^o, 4^a,
08970 - Sant Joan Despí,
Barcelona, Spain.

Marking by the above symbol indicates compliance with the Essential Requirements of the R&TTE Directive of the European Union (1999/5/EC). This equipment meets the following conformance standards:

- EN 60950 (IEC 60950) - Product Safety
- EN 300 328 - Technical requirements for 2.4 GHz radio equipment
- EN 301 489-1 / EN 301 489-17 - EMC requirements for radio equipment

Countries of Operation & Conditions of Use in the European Community

This device is intended to be operated in all countries of the European Community. Requirements for indoor vs. outdoor operation, license requirements and allowed channels of operation apply in some countries as described below:

Note: The user must use the configuration utility provided with this product to ensure the channels of operation are in conformance with the spectrum usage rules for European Community countries as described below.

- This device requires that the user or installer properly enter the current country of operation in the command line interface as described in the user guide, before operating this device.
- This device will automatically limit the allowable channels determined by the current country of operation. Incorrectly entering the country of operation may result in illegal operation and may cause harmful interference to other system. The user is obligated to ensure the device is operating according to the channel limitations, indoor/outdoor restrictions and license requirements for each European Community country as described in this document.

- This device may be operated *indoors or outdoors* in all countries of the European Community using the 2.4 GHz band: Channels 1 - 13, except where noted below.
 - In Italy the end-user must apply for a license from the national spectrum authority to operate this device outdoors.
 - In France outdoor operation is only permitted using the 2.4 - 2.454 GHz band: Channels 1 - 7.

Declaration of Conformity in Languages of the European Community

English	Hereby, SMC Networks, declares that this Radio LAN device is in compliance with the essential requirements and other relevant provisions of Directive 1999/5/EC.
Finnish	Valmistaja SMC Networks vakuuttaa täten että Radio LAN device tyyppinen laite on direktiivin 1999/5/EY oleellisten vaatimusten ja sitä koskevien direktiivin muiden ehtojen mukainen.
Dutch	Hierbij verklaart SMC Networks dat het toestel Radio LAN device in overeenstemming is met de essentiële eisen en de andere relevante bepalingen van richtlijn 1999/5/EG Bij deze SMC Networks dat deze Radio LAN device voldoet aan de essentiële eisen en aan de overige relevante bepalingen van Richtlijn 1999/5/EC.
French	Par la présente SMC Networks déclare que l'appareil Radio LAN device est conforme aux exigences essentielles et aux autres dispositions pertinentes de la directive 1999/5/CE
Swedish	Härmed intygar SMC Networks att denna Radio LAN device står i överensstämmelse med de väsentliga egenskapskrav och övriga relevanta bestämmelser som framgår av direktiv 1999/5/EG.
Danish	Undertegnede SMC Networks erklærer herved, at følgende udstyr Radio LAN device overholder de væsentlige krav og øvrige relevante krav i direktiv 1999/5/EF

COMPLIANCES

German	<p>Hiermit erklärt SMC Networks, dass sich dieser/diese/dieses Radio LAN device in Übereinstimmung mit den grundlegenden Anforderungen und den anderen relevanten Vorschriften der Richtlinie 1999/5/EG befindet". (BMW)</p> <p>Hiermit erklärt SMC Networks die Übereinstimmung des Gerätes Radio LAN device mit den grundlegenden Anforderungen und den anderen relevanten Festlegungen der Richtlinie 1999/5/EG. (Wien)</p>
Greek	Με την παρούσα smc networks δηλώνει ότι radio LAN device συμμορφώνεται προς τις ουσιαστικές απαιτήσεις και τις λοιπές σχετικές διατάξεις της οδηγίας 1999/5/ΕΚ
Italian	Con la presente SMC Networks dichiara che questo Radio LAN device è conforme ai requisiti essenziali ed alle altre disposizioni pertinenti stabilite dalla direttiva 1999/5/CE.
Spanish	Por medio de la presente SMC Networks declara que el Radio LAN device cumple con los requisitos esenciales y cualesquiera otras disposiciones aplicables o exigibles de la Directiva 1999/5/CE
Portuguese	SMC Networks declara que este Radio LAN device está conforme com os requisitos essenciais e outras disposições da Directiva 1999/5/CE.

Safety Compliance

Underwriters Laboratories Compliance Statement

Important! Before making connections, make sure you have the correct cord set. Check it (read the label on the cable) against the following:

Operating Voltage	Cord Set Specifications
120 Volts	UL Listed/CSA Certified Cord Set
	Minimum 18 AWG
	Type SVT or SJT three conductor cord
	Maximum length of 15 feet
	Parallel blade, grounding type attachment plug rated 15 A, 125 V
240 Volts (Europe only)	Cord Set with H05VV-F cord having three conductors with minimum diameter of 0.75 mm ²
	IEC-320 receptacle
	Male plug rated 10 A, 250 V

The unit automatically matches the connected input voltage. Therefore, no additional adjustments are necessary when connecting it to any input voltage within the range marked on the power adapter.

Wichtige Sicherheitshinweise (Germany)

1. Bitte lesen Sie diese Hinweise sorgfältig durch.
 2. Heben Sie diese Anleitung für den späteren Gebrauch auf.
 3. Vor jedem Reinigen ist das Gerät vom Stromnetz zu trennen. Verwenden Sie keine Flüssigoder Aerosolreiniger. Am besten eignet sich ein angefeuchtetes Tuch zur Reinigung.
 4. Die Netzanschlusßsteckdose soll nahe dem Gerät angebracht und leicht zugänglich sein.
 5. Das Gerät ist vor Feuchtigkeit zu schützen.
 6. Bei der Aufstellung des Gerätes ist auf sicheren Stand zu achten. Ein Kippen oder Fallen könnte Beschädigungen hervorrufen.
 7. Die Belüftungsöffnungen dienen der Luftzirkulation, die das Gerät vor Überhitzung schützt. Sorgen Sie dafür, daß diese Öffnungen nicht abgedeckt werden.
 8. Beachten Sie beim Anschluß an das Stromnetz die Anschlußwerte.
 9. Verlegen Sie die Netzanschlußleitung so, daß niemand darüber fallen kann. Es sollte auch nichts auf der Leitung abgestellt werden.
 10. Alle Hinweise und Warnungen, die sich am Gerät befinden, sind zu beachten.
 11. Wird das Gerät über einen längeren Zeitraum nicht benutzt, sollten Sie es vom Stromnetz trennen. Somit wird im Falle einer Überspannung eine Beschädigung vermieden.
 12. Durch die Lüftungsöffnungen dürfen niemals Gegenstände oder Flüssigkeiten in das Gerät gelangen. Dies könnte einen Brand bzw. elektrischen Schlag auslösen.
 13. Öffnen sie niemals das Gerät. Das Gerät darf aus Gründen der elektrischen Sicherheit nur von autorisiertem Servicepersonal geöffnet werden.
 14. Wenn folgende Situationen auftreten ist das Gerät vom Stromnetz zu trennen und von einer qualifizierten Servicestelle zu überprüfen:
 - a. Netzkabel oder Netzstecker sind beschädigt.
 - b. Flüssigkeit ist in das Gerät eingedrungen.
 - c. Das Gerät war Feuchtigkeit ausgesetzt.
 - d. Wenn das Gerät nicht der Bedienungsanleitung entsprechend funktioniert oder Sie mit Hilfe dieser Anleitung keine Verbesserung erzielen.
 - e. Das Gerät ist gefallen und/oder das Gehäuse ist beschädigt.
 - f. Wenn das Gerät deutliche Anzeichen eines Defektes aufweist.
 15. Stellen Sie sicher, daß die Stromversorgung dieses Gerätes nach der EN 60950 geprüft ist. Ausgangswerte der Stromversorgung sollten die Werte von AC 7,5-8 V, 50-60 Hz nicht über oder unterschreiten sowie den minimalen Strom von 1 A nicht unterschreiten.
- Der arbeitsplatzbezogene Schalldruckpegel nach DIN 45 635 Teil 1000 beträgt 70 dB(A) oder weniger.

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EZ CONNECT™ 2.4 GHz WIRELESS ETHERNET ADAPTER

Introduction

SMC's EZ Connect 2.4 GHz Wireless Ethernet Adapter (SMC2671W) can function as:

- an Ethernet adapter, providing a wireless connection via an RJ-45 connection to devices such as Microsoft Xbox and Ethernet ready embedded devices
- a standard IEEE 802.11b access point
- a wireless range extender, allowing you to effectively extend the coverage of another SMC2671W that is configured to operate in Access Point mode

This solution offers fast, reliable wireless connectivity with considerable cost savings over wired LANs (eliminates long-term maintenance overhead for cabling). Just install enough wireless access points to cover your network area, plug wireless cards into your notebooks or install wireless adapters into your desktops, and start networking.

Use this device in conjunction with SMC's EZ Connect Wireless Cards to create an instant network that integrates seamlessly with Ethernet LANs. Moreover, moving or expanding your network is as easy as moving or installing additional access points – no wires!

Package Checklist

The EZ Connect 2.4 GHz Wireless Ethernet Adapter package includes:

- One EZ Connect 2.4 GHz Wireless Ethernet Adapter (SMC2671W)
- One 5 VDC power adapter
- Installation CD containing this User Guide, EZ Installation Wizard, and Utility program
- One RJ-45 cable

Please register this product and upgrade the product warranty on SMC's web site at <http://www.smc.com>

Inform your dealer if there are any incorrect, missing, or damaged parts. If possible, retain the carton, including the original packing materials. Use them again to repack the product in case there is a need to return it.

HARDWARE DESCRIPTION

The Wireless Ethernet Adapter supports 1, 2, 5.5 and 11 Mbps half-duplex connections to Ethernet networks. This device is fully compliant with 2.4 GHz DSSS CSMA/CA wireless networking as defined in IEEE 802.11b. It can be connected via an RJ-45 connection to devices such as Nintendo GameCube, Microsoft Xbox, Sony PlayStation II, and Ethernet ready embedded devices. It can also function as an IEEE 802.11b Access Point or as a Range Extender (see “Introduction” on page 1).

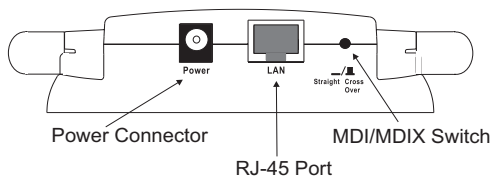


Figure 1. Rear Panel

Item	Description
Power Inlet	Connect the included power adapter to this inlet. Warning: Using the wrong type of power adapter may damage your adapter.
LAN Port	Fast Ethernet port (RJ-45). Connect device (such as a PC, hub or switch) on your local area network to this port.
MDI/MDIX Switch	Press down the switch to connect to a network device with a straight-through twisted-pair cable; otherwise, connect to the network device with (MDI-X) station ports at both ends by using crossover cabling.

Note: If you use the RELOAD button at the bottom, the Wireless Ethernet Adapter performs a power reset. If the button is depressed for over 5 seconds, all the LEDs will illuminate and the factory settings will be restored.

Applications

EZ Connect wireless products offer a fast, reliable, cost-effective solution for wireless Ethernet client access to the network in applications such as:

- **Video Game Systems**
Provides wireless Internet access for users of video game systems such as Nintendo GameCube, Microsoft Xbox and Sony PlayStation II
- **Remote access to corporate network information**
Email, file transfer, and terminal emulation
- **Difficult-to-wire environments**
Historical or old buildings, asbestos installations, and open areas where wiring is difficult to employ
- **Frequently changing environments**
Retailers, manufacturers, and banks which frequently rearrange the workplace or change locations
- **Temporary LANs for special projects or peak periods**
Trade shows, exhibitions, and construction sites that need a temporary setup. Retailers, airline, and shipping companies that need additional workstations for peak periods. Auditors who require workgroups at customer sites
- **Access to databases for mobile workers**
Doctors, nurses, retailers, or white-collar workers who need access to databases while being mobile in a hospital, retail store, in an office, or on a campus
- **SOHO users**
SOHO (Small Office and Home Office) users who need easy and quick installation of a small computer network

LED Indicators

The Wireless Ethernet Adapter includes three status LED indicators, as described in the following figure and table.

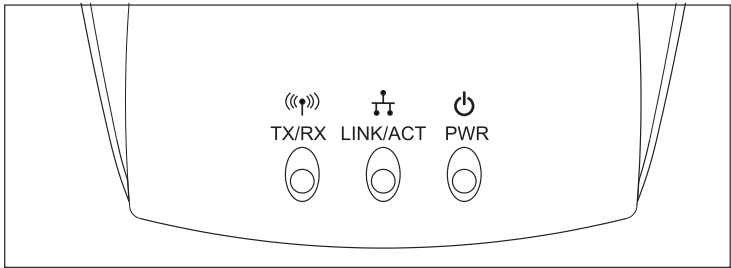


Figure 2. Front Panel

LED		Status	Description
Wireless Link	TX/RX	Flashing (Green)	The device is transmitting or receiving data through wireless links.
Ethernet Status	LNK/ACT	On (Orange)	The device has established a valid 10 Mbps Ethernet link.
		On (Green)	The device has established a valid 100 Mbps Ethernet link.
		Flashing	The device is transmitting or receiving data on the Ethernet LAN
Power (PWR)		On (Red)	Power is being supplied.

System Requirements

Before you install the Wireless Ethernet Adapter, be sure you have met the following requirements:

- An AC power outlet (100~240 V, 50~60 Hz)
- An available RJ-45 (UTP) port on an Ethernet hub or switch
- 802.11b compliant wireless Ethernet adapters with TCP/IP protocols installed
- TCP/IP network protocol installed on each PC that needs to access the Internet
- A web browser, such as Microsoft Internet Explorer 5.5 or above installed on one PC at your site for configuring the Wireless Ethernet Adapter

HARDWARE INSTALLATION

1. Select the site – Choose a location for your Wireless Ethernet Adapter. Usually, the best location is at the center of your wireless coverage area, if possible within line-of-sight of all wireless devices.
2. Place the Wireless Ethernet Adapter in a position that gives it maximum coverage. Normally, the higher you place the antenna, the better the performance.
3. Position the antennas in the desired positions. For more effective coverage, position the antennas along different axes. For example, try positioning the antennas around 45 to 90 degrees apart. **(The antennas emit signals along the toroidal plane – and thus provide more effective coverage when positioned along different axes.)**
4. If used in Ethernet Adapter mode, connect the Ethernet cable to the RJ-45 socket of the device that will communicate over a wireless connection with an access point.
5. If used in Acces Point mode, connect the SMC2671W to an Ethernet network device such as a hub or a switch using category 3, 4, or 5 UTP Ethernet cable and an RJ-45 connector. (See “Hardware Description” on page 3 for MDI/MDI-X cabling.)
6. Connect the power adapter cable to the 5 VDC power socket on the rear panel.

Warning: Use only the power adapter supplied with the SMC2671W.

SYSTEM CONFIGURATION

The SMC2671W is a Plug-and-Play device. This means that, in most cases, you will not need to configure it.

The SMC2671W Wireless Ethernet Adapter includes an SNMP agent that is accessible through an SNMP manager application (Refer to “Using the Configuration Utility” on page 12.) The latest version may be downloaded from the SMC web site specified on the back cover of this manual.

The SMC2671W can be configured by a web browser, specifically Internet Explorer 5.5 or above. Using the web management interface, you can configure the Wireless Ethernet Adapter and view statistics to monitor network activity.

Before you attempt to log into the SMC2671W's web-based administration, please verify the following.

1. Your browser is configured properly (see below).
2. Disable any firewall or security software that may be running.
3. Confirm that you have a good link LED where your computer is plugged into the Wireless Ethernet Adapter. If you don't have a link light – then try another cable to get a good link.
4. To access the Internet through the Wireless Ethernet Adapter, you must configure the network settings of the computers on your LAN to use the same IP subnet as the Wireless Ethernet Adapter. The default network settings for the Wireless Ethernet Adapter are:

SMC2671W IP Address: 192.168.2.25

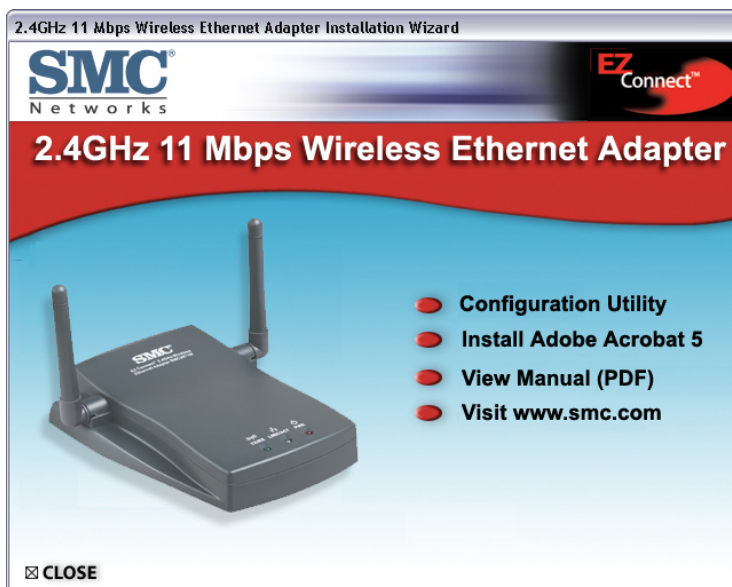
Subnet Mask: 255.255.255.0

EZ INSTALLATION WIZARD

To configure your SMC2671W, first verify that your computer has an IP address in the same subnet as the SMC2671W. If you are not familiar with this procedure, see the “Using IPCONFIG” section below.

Note: The default IP address of the SMC2671W is 192.168.2.25.

1. Insert the SMC EZ Installation Wizard & Documentation CD into your CD-ROM drive.
2. The EZ Installation Wizard will appear. Click “Configuration Utility” to begin the utility installation and setup process.



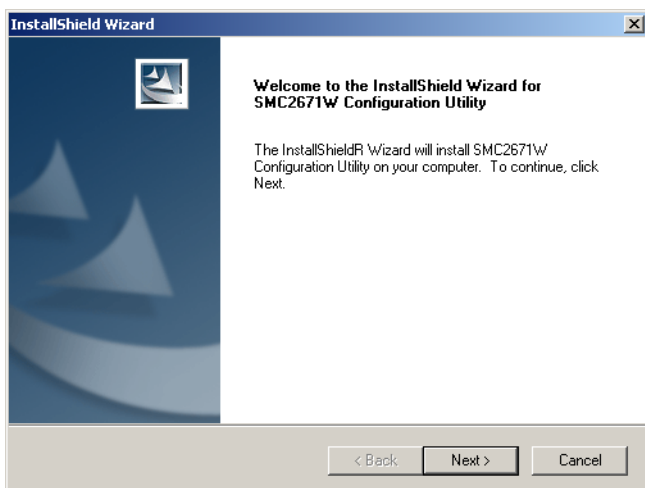
Using IPCONFIG

1. Click the “Start” button, click “Run” and type “command.”
2. Press “OK” and a DOS command prompt will appear.
3. Type “ipconfig” and press enter.
4. Verify that your IP address is 192.168.2.xxx. If so, you can now use the SMC EZ Installation Wizard to configure your SMC2671W. If your IP subnet is different, please go to the “Configuring Your IP Address” on page 25.

UTILITY INSTALLATION AND CONFIGURATION

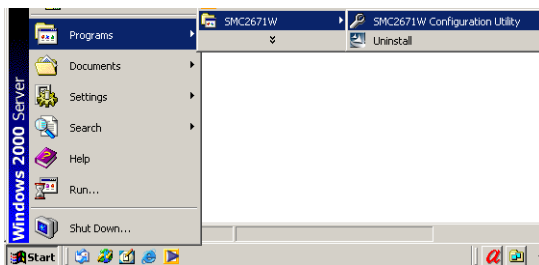
Note: This Configuration Utility is for Windows 98SE, Me, 2000, and XP.

After clicking “Configuration Utility,” follow the on-screen instructions to install the utility program.

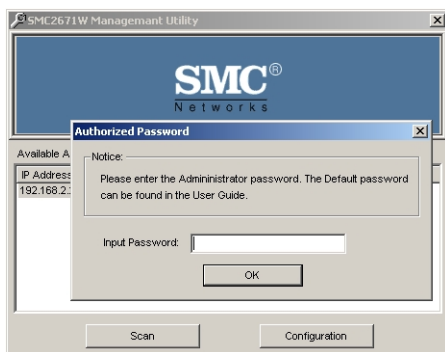


Using the Configuration Utility

1. Click Start/Programs/SMC2671W/SMC2671W Configuration Utility.



2. The program will automatically scan for SMC2671W access points on the network. If you want to subsequently detect all access points on the network, click the Scan button. From the list of detected SMC2671Ws, double-click on the IP address of the unit you wish to configure. A dialogue box will prompt you for the login password.



3. Enter the default password: smcadmin

Utility Configuration

System

The first screen displays System information.

SMC2671W Configuration Utility

System | IP Config | Statistic | Wireless Operation | Security | About

SMC[®] Networks

Device Information

Description: SMC 2671W (Ver. 1.89.0040) FCC

Mac Address: 001122334400

Regulatory Domain: ETSI

Serial Number: 1000220000

Administrator Password

New Password:

Confirm Password:

Load Default | Reset | Refresh | Apply

Menu	Description
Device Information	
Description	The model number of the unit
Mac Address	The MAC address of the SMC2671W
Regulatory Domain	Countries have different regulations regarding the use of radio frequencies. Select the correct domain for your location. <ul style="list-style-type: none"> Europe: ETSI US: FCC
Serial Number	The serial number of the SMC2671W

UTILITY INSTALLATION AND CONFIGURATION

Menu	Description
Administrator Password	Sets the password for administrator access. (Default: smcadmin)
Load Default	The Load Default button will reload the factory default settings.
Reset	The Reset button will reboot the SMC2671W.
Refresh/Apply	Once a configuration change has been made on a screen, be sure to click the Refresh or Apply button at the bottom of the screen to enable the new setting.

IP Config

Click on the IP Config tab to display and set up the IP settings of the SMC2671W.

SMC2671W Configuration Utility

System | **IP Config** | Statistic | Wireless Operation | Security | About

IP Configuration

Mac address: 0004E28AA528

IP address: 192 . 168 . 2 . 25

Subnet mask: 255 . 255 . 255 . 0

Gateway: 0 . 0 . 0 . 0

DHCP Client: Disabled

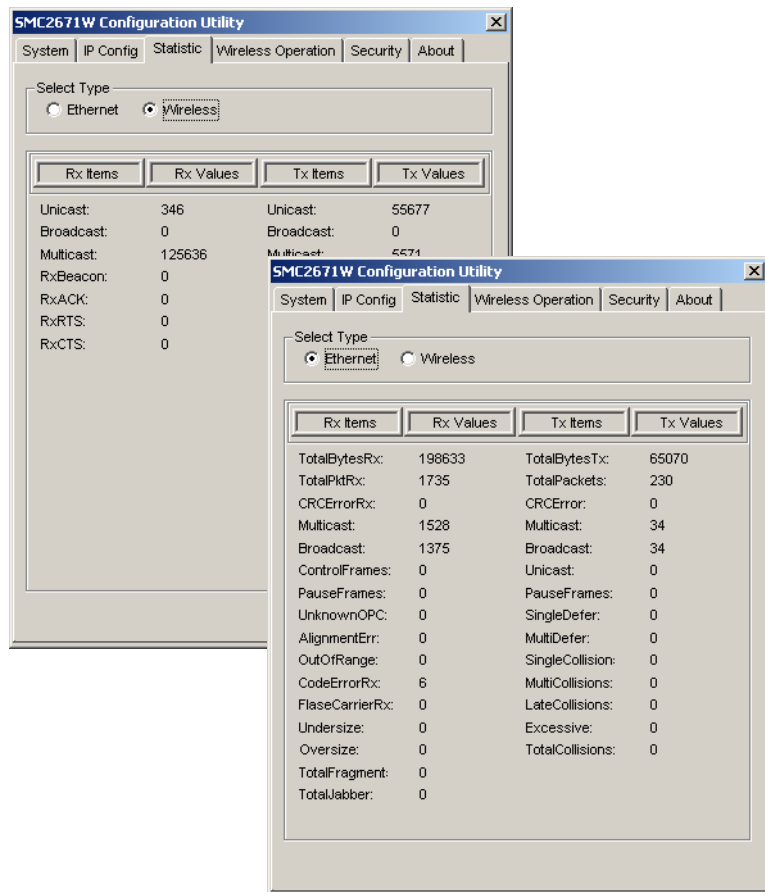
Primary port: Ethernet

Refresh Apply

Menu	Description
Mac address	The MAC address of the SMC2671W.
IP address	Set the IP address for SMC2671W as required. (Default: 192.168.2.25)
Subnet mask	Set the Subnet Mask as required. (Default: 255.255.255.0)
Gateway	Set the default gateway as required. (Default: 192.168.2.1)
DHCP Client	You can enable the DHCP Client function to automatically get an IP Address, Subnet Mask, and Default Gateway from a DHCP server in your network. (Default: Disabled)
Primary Port	The Fast Ethernet port (RJ-45)

Statistic

The Statistic tab displays transmit and receive statistics for Ethernet and wireless connections.



Wireless Operation

The Wireless Operation page allows you to set up the wireless configurations.

Menu	Description
Wireless Settings	
WLAN Interface	WLAN interface allows you to set up a wireless LAN communication environment. (Default: Enable)
SSID Broadcast	Broadcast the SSID on the wireless network for easy connection with client PCs. (Default: Disable)
Channel ID	Set the operating radio channel. (Default: 6) Note: Available channel settings are limited by local regulations which determine the available channels.
ESSID	Extended SSID. All wireless clients and the wireless access points within a specific ESS must be configured with the same SSID. (Default: ANY)

UTILITY INSTALLATION AND CONFIGURATION

Menu	Description
Device Name	The name of the wireless access point. (Default: SMC2671W)
Basic Rates	The highest rate specified is the rate the access point will use when transmitting broadcast/multicast and management frames. Available options are: 1, 2, 5.5, and 11 Mbps. (Default: 2 Mbps.)
Data Rates	Set the data rate transmitted from the SMC2671W. The lower the data rate, the longer the transmission distance. Available options are: 1, 2, 5.5, and 11 Mbps. (Default: 11)
Preamble Type	The access points and client card drivers have a radio setting for RF Preamble. If you are not sure whether all the clients and access point radios in your wireless network support the Short RF preamble, then leave this setting to the default (Long).
Beacon Interval	The beacon signals allow the wireless devices to maintain contact with each other. They may also carry power-management information. (Default: 100)
RTS Threshold	You may configure the access point to initiate an RTS frame. If the packet size is smaller than the preset RTS threshold size, the RTS/CTS mechanism will NOT be enabled. (Default: 2,347 which means Disabled)
Frag. Threshold	The Fragmentation Threshold can be set between 256 and 2,346. If the packet size is smaller than the preset fragment size, the packet will not be segmented. (Default: 2,346 which means Disabled)
Operation Mode	
Mode	This may be set to Access Point, Range Extender, or Ethernet Adapter. (Default: Ethernet Adapter)
BSSID	Basic Service Set ID. The MAC address of the access point to which the adapter is connected in an infrastructure network. In an ad hoc network, the BSS ID is a random number generated by the first adapter that communicates with other clients in the network. The BSS ID of the other clients will then be set to the same value.

Menu	Description
MAC Filtering	<p>You can decide which wireless devices are allowed to connect to the SMC2671W by adding the MAC address of allowed clients. Wireless devices that are not in the table will be denied access.</p> <ul style="list-style-type: none">• Choose Enable MAC Filtering to enable the MAC Filter. (Default: Disabled)• Key in the MAC address of the Ethernet device which is allowed to associate with the SMC2671W, and click Add. Note: The format of the MAC address is 12 hexadecimal digits, i.e., A~F & 0~9.• Select the MAC address from the MAC Address List, and click on the Delete button to remove the client address from the SMC2671W. Note: This table will be blank if the SMC2671W is set to Ethernet Adapter mode since the Ethernet Adapter has no clients but is itself the client of an associated access point.

Security

The Security screen provides you with a versatile encryption method to prevent unauthorized access to your wireless network and provide more secure data transmissions.

SMC2671W Configuration Utility

System | IP Config | Statistic | Wireless Operation | **Security** | About

Type

Encryption: WEP

WEP:

WEP: Enable 64 Auto
Enable 64 manual
Enable 128 manual
Enable 64 Auto
Enable 128 Auto

Active: Key 1

Key1:

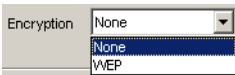
Key2:

Key3:

Key4:

Passphrase:

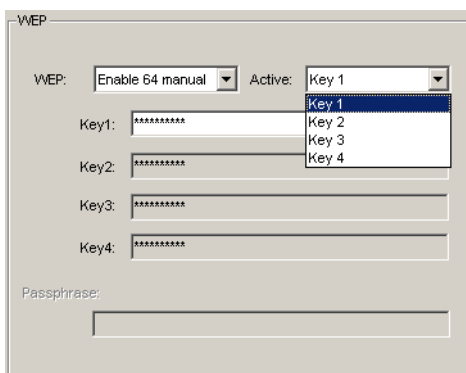
Refresh Apply

Menu	Description
Type	
Encryption	<p>Enabled/Disable WEP (Wired Equivalent Privacy) encryption. (Default: None)</p> 
WEP	All clients and a wireless access point in the wireless network must have the same WEP setting.
WEP (mode)	The SMC2671W supports shared key encryption with key lengths of the 64-bit standard and 128-bit industry standard.
Active (key)	Choose a key from the generated keys.
Passphrase	For automatic 64-bit security, enter a passphrase. Four keys will be generated (as shown below). Automatic 128-bit security generates a single passphrase.

You may automatically generate encryption keys or manually enter the keys. The bit key must be in hexadecimal. (0~9, A~F, e.g., D7 0A 9C 7F E5.)

64-Bit Manual Entry

Key 1~4 - Each Key ID contains 10 HEX digits.



WEP: Active:

Key1:

Key2:

Key3:

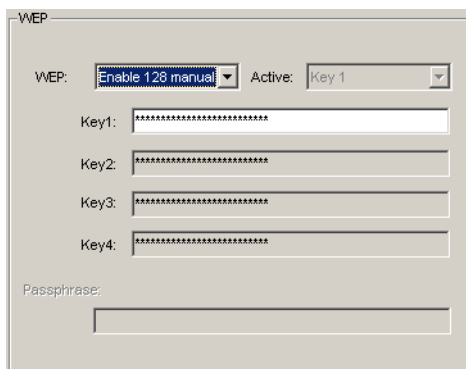
Key4:

Passphrase:

UTILITY INSTALLATION AND CONFIGURATION

128-Bit Manual Entry

Key ID contains 26 HEX digits.



WEP

WEP: **Enable 128 manual** Active: **Key 1**

Key1:

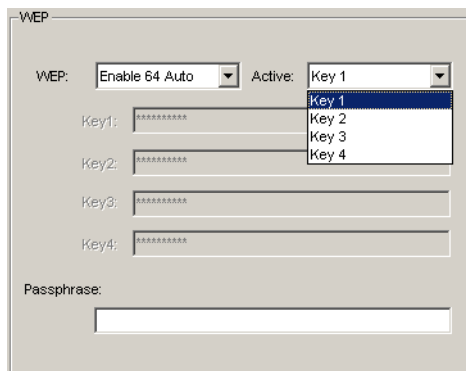
Key2:

Key3:

Key4:

Passphrase:

64-Bit Auto Entry



WEP

WEP: **Enable 64 Auto** Active: **Key 1**

Key1:

Key2:

Key3:

Key4:

Passphrase:

128-Bit Auto Entry

WEP:

WEP: Enable 128 Auto Active: Key 1

Key1:

Key2:

Key3:

Key4:

Passphrase:

About

The About tab displays the product name, the software version number of the SMC2671W Configuration management tool, and SMC copyright information.



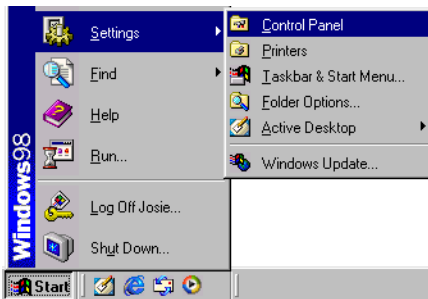
Note: Clicking the SMC logo on the screen takes you to the SMC web site (www.smc.com) for the latest firmware download.

CONFIGURING YOUR IP ADDRESS

Windows 98/Me

Note: Some Windows 9x/Me systems will request that you insert your Windows CD in order to complete the following configuration. Please have this CD ready.

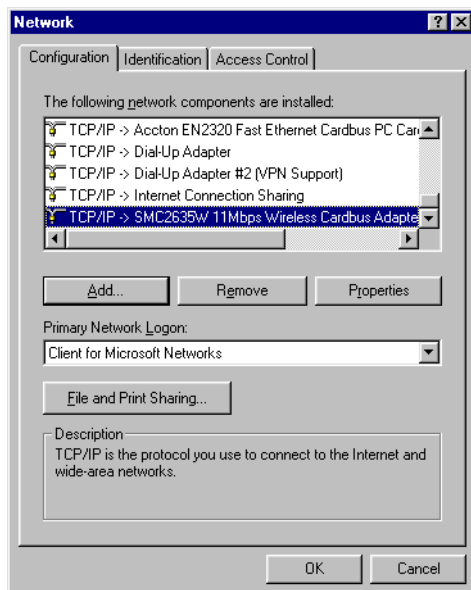
1. Click the “Start” button and choose “Settings,” then click “Control Panel.”



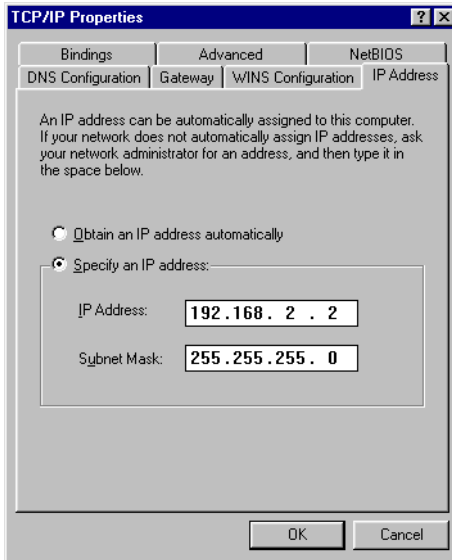
2. Double-click the “Network” icon.

CONFIGURING YOUR IP ADDRESS

3. Select the TCP/IP that is bound to the network adapter that you are currently using to configure your SMC2671W. Click “Properties.”



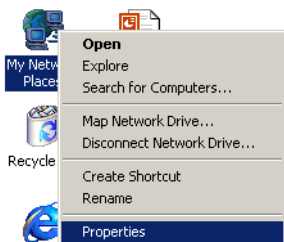
4. Select the "Specify an IP address" option and insert 192.168.2.x (where x is 2 ~ 24, 26 ~ 254). Then insert 255.255.255.0 for the subnet mask.



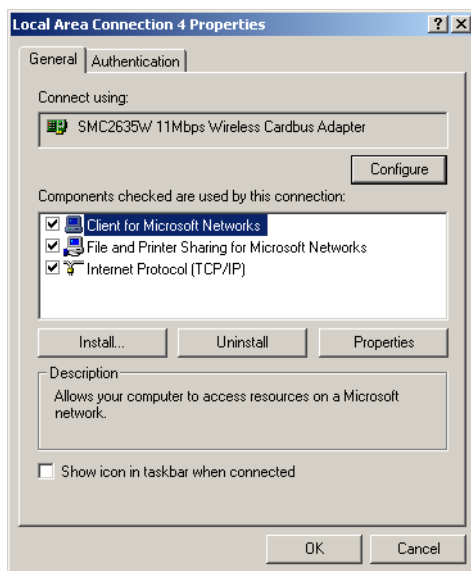
5. Press OK and reboot the machine when prompted to do so.

Windows 2000

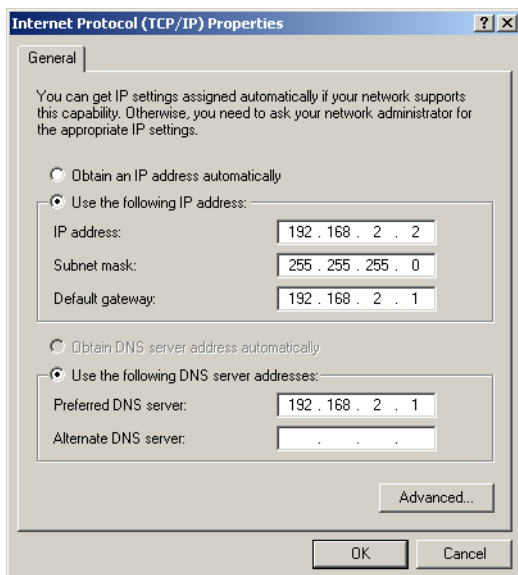
1. Right-click the “Network Places” icon on your desktop and click “Properties.”



2. Right-click your Local Area Connection and click “Properties.”



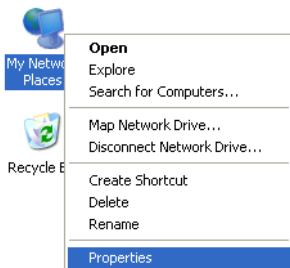
3. Click “Internet Protocol TCP/IP” and click “Properties.” Select the “Use the following IP Address” option and insert 192.168.2.x (where x is 2 ~ 24, 26 ~ 254). Specify the default gateway and DNS server as indicated by your network administrator or Internet Service Provider.



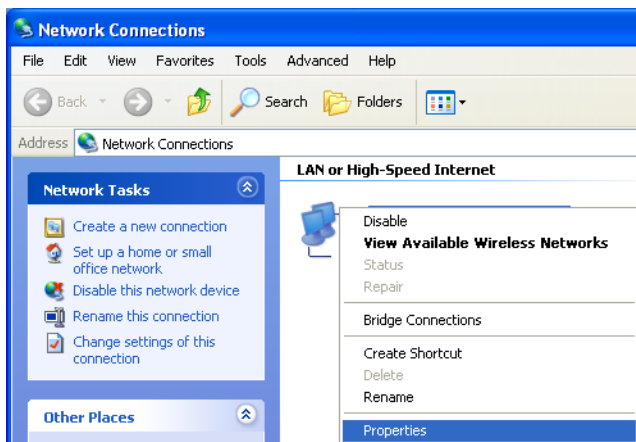
4. Click “OK” and click “Close” to continue and save the changes.

Windows XP

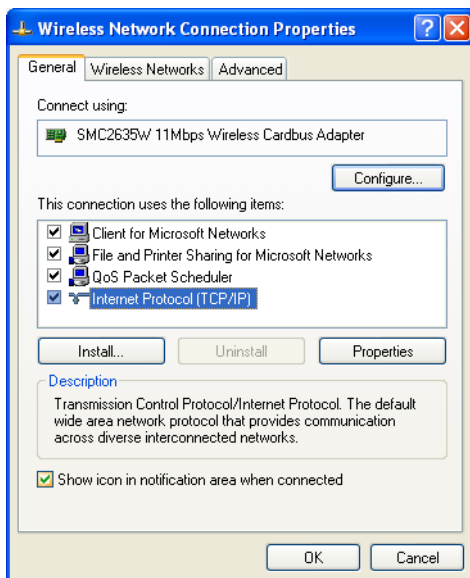
1. Right-click the “Network Places” icon on your desktop and click “Properties.”



2. Right-click your “Local Area Connection” and click “Properties.”

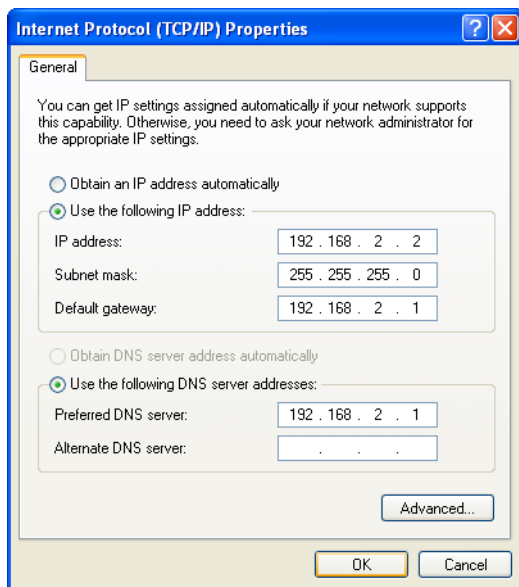


3. Click “Internet Protocol TCP/IP” and click “Properties.”



CONFIGURING YOUR IP ADDRESS

4. Select the “Use the following IP Address” option and insert 192.168.2.x (where x is 2 ~ 24, 26 ~ 254) for the IP address. Specify the default gateway and DNS server as indicated by your network administrator or Internet Service Provider.



5. Click “OK” and click “Close” to continue and save the changes.

WEB MANAGEMENT

Browser Configuration

Confirm that your browser is configured for a direct connection to the Internet using the Ethernet cable that is installed in the computer.

Disable Proxy Connection

You will also need to verify that the HTTP Proxy feature of your web browser is disabled. This is so that your web browser will be able to view the SMC2671W configuration pages. The following steps are for Internet Explorer. Determine which browser you use and follow the appropriate steps.

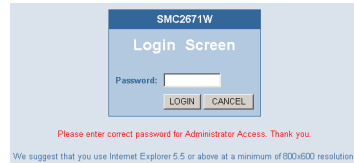
Internet Explorer (5.5 or above) in Microsoft Windows

1. Open Internet Explorer. Click Tools, and then select Internet Options.
2. In the Internet Options window, click the Connections tab.
3. Click the LAN Settings button.
4. Clear all the check boxes and click OK to save these LAN settings changes.
5. Click OK again to close the Internet Options window.

Internet Explorer in Macintosh

1. Open Internet Explorer. Click Explorer/Preferences.
2. In the Internet/Explorer/Preferences window, under Network, select Proxies.
3. Uncheck all check boxes and click OK.

To access the SMC2671W's management interface, enter the Wireless Ethernet Adapter IP address in your web browser **http://192.168.2.25**. Then enter the password and click LOGIN.
(Default password: smcadmin)



The home page displays the Setup options.

Navigating the Web Browser Interface

The SMC2671W's web management interface features a user-friendly setup interface. This configuration UI supports advanced functions like password setting, LAN IP setting, wireless security configuration, MAC address filtering, firmware upgrade, and other advanced functions.

Making Configuration Changes

Configurable parameters have a dialog box or a drop-down list. Once a configuration change has been made on a page, be sure to click the APPLY or REFRESH button at the bottom of the page to enable the new setting.

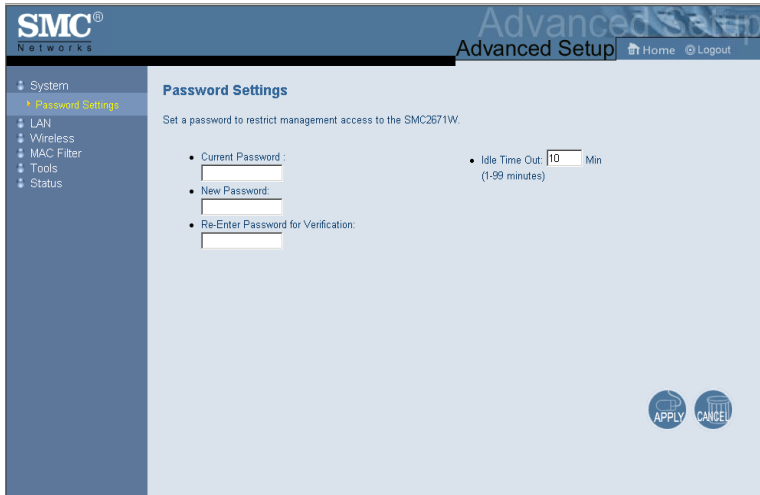
Note: To ensure proper screen refresh after a command entry, ensure that Internet Explorer 5.5 is configured as follows: Under the menu Tools/Internet Options/General/Temporary Internet Files/Settings, the setting for "Check for newer versions of stored pages" should be "Every visit to the page."

Use the web management interface to define system parameters, manage and control the Wireless Ethernet Adapter and its ports, or monitor network conditions. The following table outlines the selections available from this program.

Menu	Description
System	Sets the password for administrator access
LAN	Sets the TCP/IP configuration of the Wireless Ethernet Adapter's LAN interface and DHCP setup
Wireless	Configures the wireless channel, SSID, and encryption for wireless communications
MAC Filter	Configures access to your network clients based on the MAC (Media Access Control) address of the client machine
Tools	Contains options to backup and restore the current configuration, restore all configuration settings to the factory defaults, update system firmware, or reset the system Displays WAN and Ethernet traffic statistics
Status	Displays WAN/LAN connection status, firmware, and hardware version numbers

System

Password Settings



The screenshot shows the 'Advanced Setup' interface for SMC Networks. The left sidebar contains a menu with 'System' expanded, showing 'Password Settings' (highlighted), 'LAN', 'Wireless', 'MAC Filter', 'Tools', and 'Status'. The main content area is titled 'Password Settings' and includes the instruction: 'Set a password to restrict management access to the SMC2671W.' Below this, there are three password fields: 'Current Password', 'New Password', and 'Re-Enter Password for Verification'. To the right of these fields is an 'Idle Time Out' setting, currently set to '10 Min' with a note '(1-99 minutes)'. At the bottom right of the main area are 'APPLY' and 'CANCEL' buttons.

Use this menu to restrict access based on a password. (Default: smcadmin). For security reasons, you should change the default password before exposing the SMC2671W to the Internet.

Passwords can contain from 3 to 12 alphanumeric characters and are not case-sensitive.

Enter a maximum Idle Time Out (in minutes) to define a maximum period of time for which the login session is maintained during inactivity. If the connection is inactive for longer than the maximum idle time, it will be logged out, and you have to log in to the web management system again. (Default: 10 minutes)

LAN

SMC[®] Networks Advanced Setup [Home](#) [Logout](#)

- System
- LAN
- Wireless
- MAC Filter
- Tools
- Status

LAN Settings

Use this section to configure the LAN settings for the SMC2671W.

AP Name: SMC2671W

IP Settings: ☐ Obtain an IP Address Automatically [DHCP] ☒ Configure a Static IP Address

IP Address: 192 . 168 . 2 . 25

Subnet Mask: 255 . 255 . 255 . 0

Gateway: 192 . 168 . 2 . 1

[APPLY](#) [CANCEL](#)

With “Obtain an IP Address Automatically [DHCP]” enabled, the IP address, subnet mask and default gateway can be dynamically assigned to the SMC2671W by the network DHCP server.

Note: If there is no DHCP server on your network, then the SMC2671W will automatically start up with its default IP address, 192.168.2.25.

The SMC2671W does not provide DHCP service. It simply passes client DHCP requests through to the DHCP server to obtain an IP Address.

If your Internet Service Provider has assigned a fixed IP address, select “Configure a Static IP Address.” Enter the assigned address and subnet mask for the SMC2671W. Then enter the gateway address of your ISP.

You may need a fixed address if you want to provide Internet services, such as a web server or FTP server.

Wireless

To configure the SMC2671W as an Ethernet Adapter, all you need to do is define the radio channel, the Service Set Identifier (SSID), and encryption options.

In Ethernet Adapter mode or Range Extender mode, the radio channel and SSID (Service Set ID) of the SMC2671W must be set to the same values as those of the access point with which they are associated.

If the SMC2671W is in Access Point mode, you must specify a common radio channel and SSID (Service Set ID) to be used by the Wireless Ethernet Adapter and all of your wireless clients. Be sure you configure all of your clients to the same values.

The screenshot shows the 'Advanced Setup' page for the SMC2671W. The left sidebar contains a menu with 'System', 'LAN', 'Wireless' (highlighted), 'MAC Filter', 'Tools', and 'Status'. The main content area is titled 'Channel and SSID' and includes the instruction: 'Use this section to configure the Channel and SSID settings for the SMC2671W.' Below this instruction are three configuration fields: 'Wireless Channel' with a dropdown menu showing '6', 'SSID' with a text input field containing 'ANY', and 'Broadcast SSID' with a checked checkbox. At the bottom right of the form are 'APPLY' and 'CANCEL' buttons.

Channel and SSID	
Use this section to configure the Channel and SSID settings for the SMC2671W.	
Wireless Channel	6
SSID	ANY
Broadcast SSID	<input checked="" type="checkbox"/>

APPLY CANCEL

Wireless Channel: The radio channel through which a wireless access point communicates with PCs in its BSS. (Default: 6)

Note: The available channel settings are limited by local regulations which determine the number of channels that are available.

- USA: 1 ~ 11 channels
- Europe: 1 ~ 13 channels
- Japan: 1 ~ 14 channels

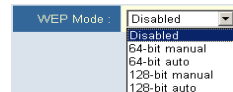
SSID: The Service Set ID. This should be set to the same value as other wireless devices in your network. (Default: ANY)

Note: The SSID is case-sensitive and can consist of up to 32 alphanumeric characters.

Broadcast SSID: In Access Point Mode or Range Extender Mode, the SMC2671W can be enabled to broadcast the SSID on the wireless network for easy connection with client PCs. (Default: Enable)

WEP Encryption

If you are transmitting sensitive data across wireless channels, you should enable Wired Equivalent Privacy (WEP) encryption.



Encryption requires you to use the same set of encryption/decryption keys for a wireless access point and all of its wireless clients. The SMC2671W supports shared key encryption with key lengths of the 64-bit standard and 128-bit industry standard. The bit key must be in hexadecimal. (0~9, A~F, e.g., D7 0A 9C 7F E5.)

64-Bit Manual Entry

Key 1~4 - Each Key ID contains 10 HEX digits.

128-Bit Manual Entry

Key ID contains 26 HEX digits.

WEP Mode :	64-bit manually ▾
Key 1 :	<input type="text" value="00"/> <input type="text" value="00"/> <input type="text" value="00"/> <input type="text" value="00"/> <input type="text" value="00"/> <input type="text" value="00"/> (5 hex digit pairs)
Key 2 :	<input type="text" value="00"/> <input type="text" value="00"/> <input type="text" value="00"/> <input type="text" value="00"/> <input type="text" value="00"/> <input type="text" value="00"/> (5 hex digit pairs)
Key 3 :	<input type="text" value="00"/> <input type="text" value="00"/> <input type="text" value="00"/> <input type="text" value="00"/> <input type="text" value="00"/> <input type="text" value="00"/> (5 hex digit pairs)
Key 4 :	<input type="text" value="00"/> <input type="text" value="00"/> <input type="text" value="00"/> <input type="text" value="00"/> <input type="text" value="00"/> <input type="text" value="00"/> (5 hex digit pairs)

WEP Mode :	64-bit automatically ▾
PassPhrase :	<input type="text"/>
Key :	<input checked="" type="radio"/> Key1 <input type="radio"/> Key2 <input type="radio"/> Key3 <input type="radio"/> Key4

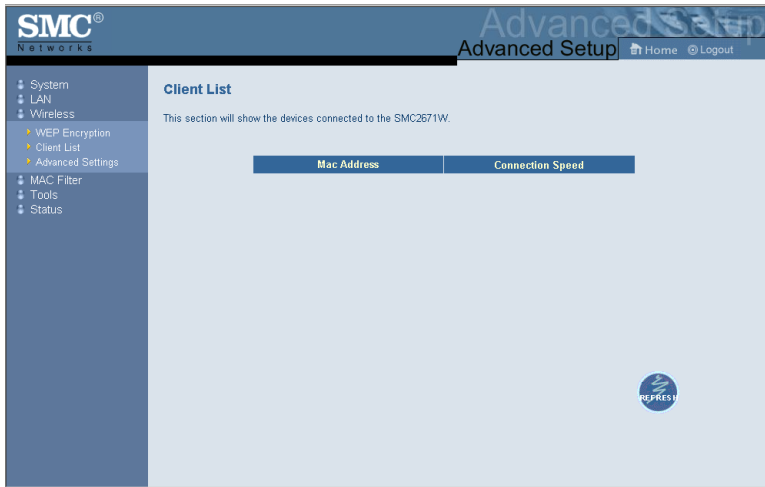
WEP Mode :	128-bit manually ▾
Key :	<input type="text" value="00"/> <input type="text" value="00"/> <input type="text" value="00"/> <input type="text" value="00"/> <input type="text" value="00"/> <input type="text" value="00"/> <input type="text" value="00"/> <input type="text" value="00"/> <input type="text" value="00"/> <input type="text" value="00"/> <input type="text" value="00"/> <input type="text" value="00"/> <input type="text" value="00"/> <input type="text" value="00"/> <input type="text" value="00"/> (13 hex digit pairs)

WEP Mode :	128-bit automatically ▾
PassPhrase :	<input type="text"/>

You may automatically generate encryption keys or manually enter the keys. For automatic 64-bit security, enter a passphrase. Four keys will be generated (as shown above). Choose a key from the four generated keys. Automatic 128-bit security generates a single passphrase.

Note that Wired Equivalent Privacy (WEP) protects data transmitted between wireless nodes, but does not protect any transmissions over your wired network or over the Internet.

Client List



The Client List screen displays the MAC address and network speed of the associated clients.

Advanced Settings

Operation Mode: This may be set to Access Point, Range Extender or Ethernet Adapter.
(Default: Ethernet Adapter)

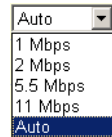
Note: After you choose the operation mode for the SMC2671W, be sure to click the APPLY button, and click OK on the confirmation message to enable the new setting.

These modes are described below:

- Access Point – functions as a standard IEEE 802.11b access point
- Range Extender – repeats data from another SMC2671W that is configured in Access Point mode
- Ethernet Adapter – provides a wireless connection to devices such as Microsoft Xbox and Ethernet ready embedded devices

The parameters that follow may be configured in any of the three modes described above but the user is advised to leave them at their default settings.

Transmission Rate : Set the data rate transmitted from the Wireless Ethernet Adapter. The lower the data rate, the longer the transmission distance.
(Default: Auto)



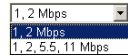
RTS Threshold : Set the RTS (Request to Send) frame length. You may configure the access point to initiate an RTS frame. If the packet size is smaller than the preset RTS threshold size, the RTS/CTS mechanism will NOT be enabled.

The access point sends Request to Send (RTS) frames to a particular receiving station to negotiate the sending of a data frame. After receiving an RTS, the station sends a CTS (Clear to Send) frame to acknowledge the right of the sending station to send data frames. The access points contending for the medium may not be aware of each other. The RTS/CTS mechanism can solve this “Hidden Node Problem.” (Default: 2347)

Fragmentation Threshold : The Fragmentation Threshold can be set between 256 and 2,346. If the packet size is smaller than the preset Fragment size, the packet will not be segmented.

Fragmentation of the PDUs (Package Data Units) can increase the reliability of transmissions because it increases the probability of a successful transmission due to smaller frame size. If there is significant interference present, or collisions due to high network utilization, try setting the fragment size to send smaller fragments. This will make the retransmission of smaller frames much faster. However, it is more efficient to set the fragment size larger if very little or no interference is present because it requires overhead to send multiple frames. (Default: 2346)

Basic Rate : The highest rate specified is the rate the Wireless Ethernet Adapter will use when transmitting broadcast/multicast and management frames. (Default: 1, 2 Mbps.)



Preamble Type : The access points and client card drivers have a radio setting for for a long or short RF preamble. Preamble Type offers a drop-down list with two options: Long or Short. Using the short preamble can boost your throughput. If you are not sure whether all the clients and access point radios in your wireless network support the Short RF preamble, then leave this setting to the default (Long).

Transmit Power : Set the signal strength transmitted from the access point. The longer the transmission distance, the higher the transmission power required. (Default: Super)



Selections - Low, Medium, Normal, High and Super

Site Survey

In Ethernet Adapter mode, the Site Survey scans and shows all IEEE 802.11b wireless devices within the adapter's signal range. You can choose one of them to connect to by clicking on an (B)SSID entry.

Site Survey

Use this tool to view and connect to other 802.11b Access Points or Routers in your location.

	BSSID	Channel	WEP	SSID
1	00-30-F1-8C-B3-FD	1	Enabled	HP-oliviaCI_TW
2	00-90-4B-21-C9-D0	1	Disabled	Greatme-palanig
3	00-04-E2-8A-A6-80	2	Disabled	Sundew_PCI_TWq
4	00-30-F1-92-43-FE	3	Enabled	extreme-palanig
5	00-30-F1-8D-DA-94	4	Disabled	wireless32-DVT
6	00-20-D8-03-95-5A	7	Enabled	Nortel-alaryVT
7	00-0B-AC-E7-9D-0A	8	Disabled	WA4001A testff
8	00-40-96-5B-40-B1	9	Disabled	WA4001A-32-DVTeless AP
9	00-20-D8-03-93-2D	9	Disabled	Nortel-abneif
10	00-01-E3-01-91-AA	10	Enabled	yichun-lionef
11	00-04-F2-43-05-06	11	Disabled	hu2000L-Ruinf

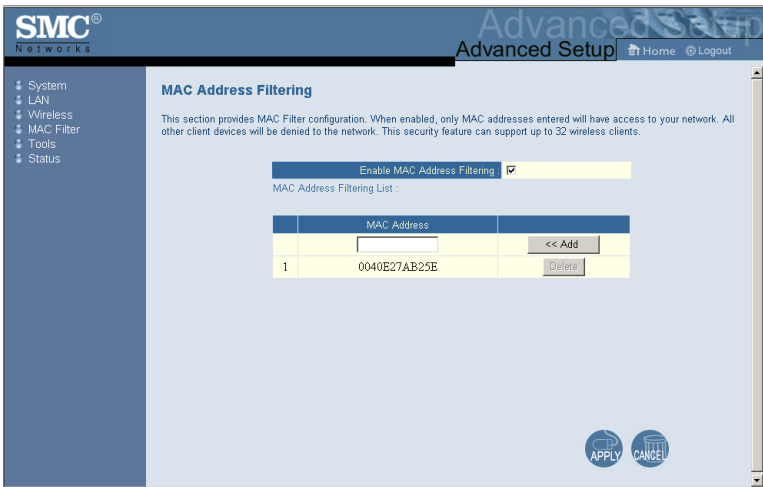
BSSID : Basic Service Set ID. The MAC address of the access point to which the adapter is connected in an infrastructure network. In an ad hoc network, the BSS ID is a random number generated by the first adapter that communicates with other clients in the network. The BSS ID of the other clients will then be set to the same value.

Channel : The radio channel on which the access point operates.

WEP : WE security protects your wireless LAN against eavesdropping and unauthorized access by intruders. If WEP is in use, all clients on the same network must use the same WEP key settings in order to communicate with each other.

SSID : The Service Set ID of the scanned access points.

MAC Filter

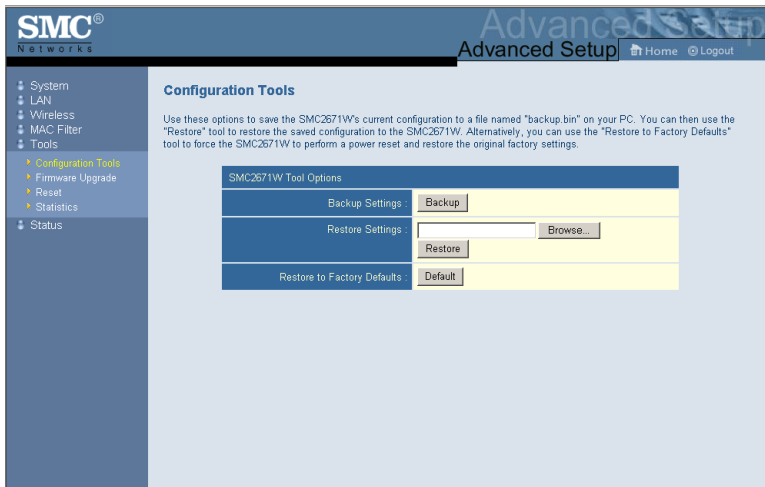


The MAC Filtering feature of the SMC2671W allows you to control access to your network clients based on the MAC (Media Access Control) Address of the client machine. This ID is unique to each network adapter. If MAC address filtering is enabled, then the MAC address for each client must be listed in the table to allow access to the network.

Tools

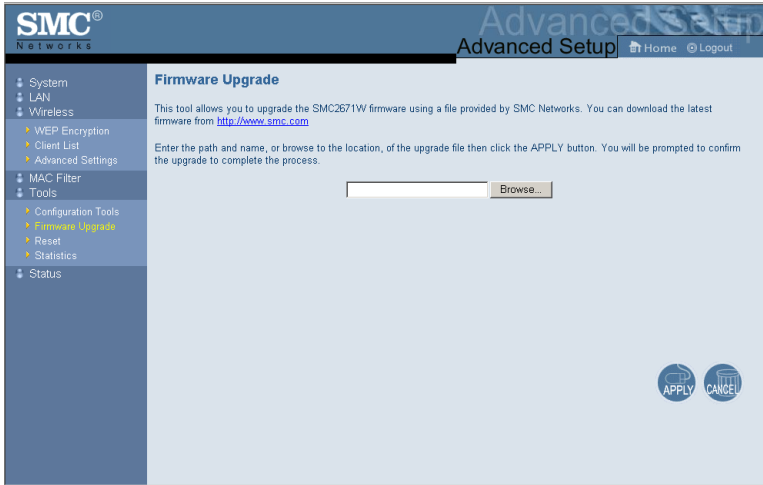
Use the Tools menu to back up the current configuration, restore a previously saved configuration, restore factory settings, update firmware, and reset the SMC2671W.

Configuration Tools



- **Backup Settings** – Saves the SMC2671W's configuration to a file.
- **Restore Settings** – Restores settings from a saved backup configuration file.
- **Restore to Factory Defaults** – Restores the SMC2671W settings back to the original factory defaults.

Firmware Upgrade



Use this screen to update the firmware or user interface to the latest version. Download the upgrade file from the web site and save it to your hard drive. Click Browse to look for the previously downloaded file. Click APPLY.

Check the Status page Information section to confirm that the upgrade process was successful.

Reset



Click APPLY to reset the SMC2671W. Your settings will not be changed. The reset will be complete when the power LED is lit red.

Statistics



The Statistics page displays transmit and receive statistics for all associated stations.

Status

The screenshot shows the 'Status' page of the SMC Networks Advanced Setup interface. The left sidebar contains a menu with options: System, LAN, Wireless, MAC Filter, Tools, and Status. The main content area is titled 'Status' and includes a description: 'Use this Status section to view connection status, firmware and hardware version numbers, network activity, and information on all clients connected to the SMC2671W.' Below this, the 'Current Time' is displayed as '10/30/2003 3:30:18 pm'. The page is divided into three columns: 'Version Info', 'LAN Settings', and 'Wireless'. The 'Version Info' column lists: Firmware: 1.89.0040, Boot version: 1.82.1, Hardware: R01, and Serial No: A1234567890. The 'LAN Settings' column lists: IP Address: 192.168.2.25, Subnet Mask: 255.255.255.0, Gateway: 192.168.2.1, Configuration: Static IP, and MAC Address: 00-11-22-33-44-00. The 'Wireless' column lists: SSID: ANY, SMC2671W Name: SMC2671W, SMC2671W Mode: Access Point, Channel: 1, Transmit Rate: Auto, and Encryption(WEP): Disabled.

Version Info	LAN Settings	Wireless
Firmware: 1.89.0040	IP Address: 192.168.2.25	SSID: ANY
Boot version: 1.82.1	Subnet Mask: 255.255.255.0	SMC2671W Name: SMC2671W
Hardware: R01	Gateway: 192.168.2.1	SMC2671W Mode: Access Point
Serial No: A1234567890	Configuration: Static IP	Channel: 1
	MAC Address: 00-11-22-33-44-00	Transmit Rate: Auto
		Encryption(WEP): Disabled

The Status screen displays WAN/LAN connection status, firmware, and hardware version numbers of the SMC2671W.

NETWORK CONFIGURATION AND PLANNING

The Wireless Solution supports a stand-alone wireless network configuration, as well as an integrated configuration with 10 Mbps Ethernet LANs. For a list of the maximum distances between the AP/Bridge and wireless clients, refer to page 57.

The wireless network cards and adapters can be configured as:

- Ad hoc – for small departmental or SOHO LANs
- Infrastructure – for enterprise LANs

Network Topologies

Ad Hoc Wireless LAN

An ad hoc wireless LAN consists of a group of computers, each equipped with a wireless adapter or SMC2671W Ethernet Adapter, connected via radio signals as an independent wireless LAN. Computers in a specific ad hoc wireless LAN must be configured to the same radio channel.



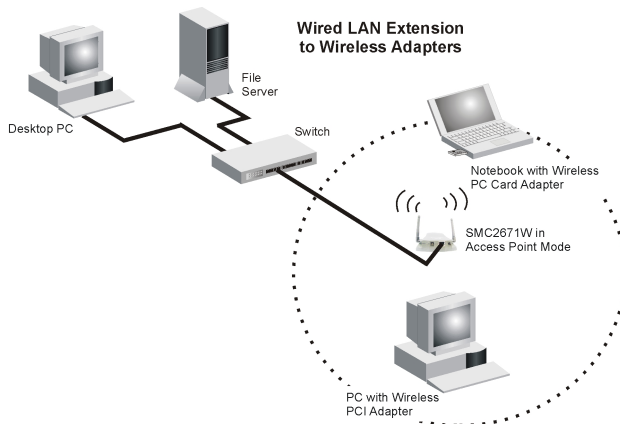
An ad hoc wireless LAN can be used for a small branch office or SOHO operation.

Infrastructure Wireless LAN

An integrated wired and wireless LAN is called an infrastructure configuration. A Basic Service Set (BSS) consists of a group of wireless PC users, and an access point that is directly connected to the wired LAN. Each wireless PC in this BSS can talk to any computer in its wireless group via a radio link, or access other computers or network resources in the wired LAN infrastructure via the access point.

The infrastructure configuration permits wireless clients to access the wired LAN and also increases the effective wireless transmission range for wireless clients as their signal can be passed through multiple access points.

A wireless infrastructure can be used for access to a central database, or for connection between mobile workers, as shown in the following figure.

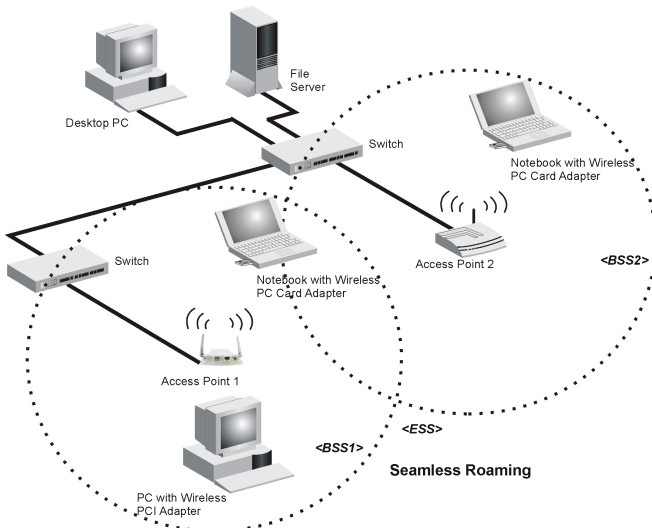


Infrastructure Wireless LAN for Roaming Wireless PCs

The Basic Service Set (BSS) is the communications domain for each wireless access point. For wireless PCs that do not need to support roaming, set the domain identifier (SSID) of the wireless card to the SSID of the access point to which you want to connect. Check with your administrator for the SSID of the access point to which he wants you to connect.

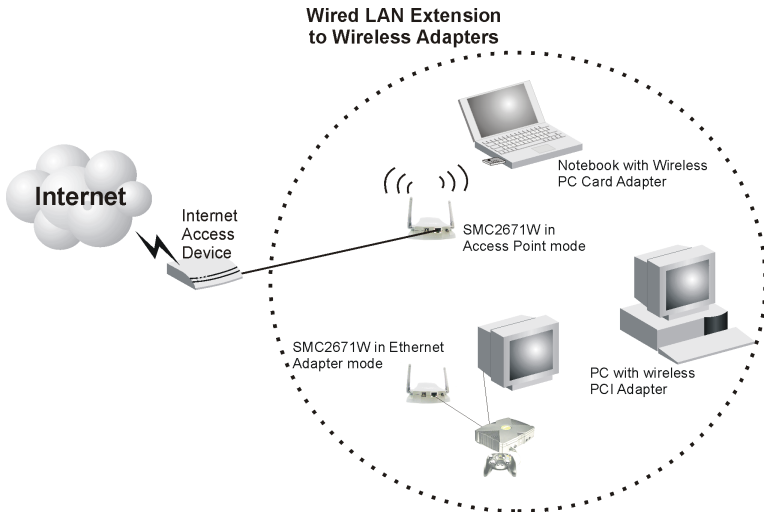
A wireless infrastructure can also support roaming for mobile workers. More than one access point can be configured to create an Extended Service Set (ESS). By placing the access points so that a continuous coverage area is created, wireless users within this ESS can roam freely. All wireless network cards, adapters, and the wireless access point within a specific ESS must be configured with the same SSID.

Note: If Access Point 2 is replaced by an SMC2671W set to Range Extender mode then the SMC2671W will not establish its own BSS, but will repeat data messages between Access Point 1 and end users, thus extending the coverage area of Access Point 1.



A Wireless LAN with Internet Access

In this application one SMC2671W is in Ethernet Adapter mode connected to a Microsoft Xbox. Another SMC2671W is acting in Access Point mode. This provides a wireless network and also Internet access for applications including Internet game playing.



TROUBLESHOOTING

Check the following items before you contact technical support.

1. If mobile users do not have roaming access to the SMC2671W:

Make sure that all the SMC2671Ws and stations in the ESS in which the WLAN mobile users can roam are configured to the same WEP setting, SSID, and authentication algorithm.

2. If the management utility cannot connect to the SMC:

Check that your local IP address settings conform to the SMC2671W settings.

3. If you forgot your password or your SMC2671W has locked up, you can reset it to factory defaults by performing the following steps:
 - Use a pin to push in the RELOAD button for 5 seconds. This button is located on the bottom of the SMC2671W.
 - The SMC2671W will begin to load the default settings.
 - The SMC2671W will restart with the factory default settings.

SMC Networks 802.11b Wireless Product Maximum Distance Table

Important Notice

Maximum distances posted below are actual tested distance thresholds. However, there are many variables such as barrier composition and construction, as well as local environmental interference that may impact your actual distances and cause you to experience distance thresholds far lower than those posted below. If you have any questions or comments regarding the features or performance of this product, or if you would like information regarding our full line of wireless products, visit us at www.smc.com, or call us toll-free at 800.SMC.4YOU. SMC Networks stands behind every product sold with a 30-day satisfaction guarantee and a limited-lifetime warranty.

SMC2602W 802.11b Wireless PCI Card Maximum Distance Table				
Speed and Distance Ranges				
Environmental Condition	11 Mbps	5.5 Mbps	2 Mbps	1 Mbps
Outdoors: A line-of-sight environment with no interference or obstruction between the Access Point and users.	160 m (528 ft)	195 m (640 ft)	255 m (837 ft)	350 m (1155 ft)
Indoors: A typical office or home environment with floor to ceiling obstructions between the Access Point and users.	72 m (236 ft)	73 m (240 ft)	73 m (240 ft)	75 m (246 ft)

SPECIFICATIONS

Standards

Ethernet: 802.3 Ethernet or 802.3u Fast Ethernet for 10BASE-T/
100BASE-TX (RJ-45)
Radio: IEEE 802.11b

Operating Channels

IEEE 802.11b compliant
USA & Canada: 1 ~ 11 channels,
Europe (ETSI): 1 ~ 13 channels,
Japan: 1 ~ 14 channels

Data Rate

1, 2, 5.5, 11 Mbps

Operating Frequency

USA, Canada, and Europe (ETSI): 2400-2483.5 MHz
Japan: 2400-2497 MHz

Modulation Type

CCK, BPSK, and QPSK

Radio Technology

Direct Sequence Spread Spectrum

Power Supply

Input: 100-240 AC, 50-60 Hz
Output: 5 VDC, 1A

Power Consumption

5 V, 700 mA maximum

Receive Sensitivity

Minimum -87 dBm for 1 Mbps
Minimum -85 dBm for 2 Mbps
Minimum -83 dBm for 5.5 Mbps
Minimum -80 dBm for 11 Mbps

Output Power

> +18dBm minimum

Physical Size

14.30 x 12.20 x 3.03 cm (5.63 x 4.80 x 1.19 in.)

Weight

150 g (5.3 oz)

LED Indicators

Power, Ethernet Link/Activity,
Wireless Activity (TX/RX)

Antenna

Two 2.0 dBi omni-directional dipole antennas

Network Management

Windows 98SE/Me/2000/XP SNMP Management Utility

Operating System Compatibility

Windows 98SE/Me/2000/XP

Supported Protocol

TCP/IP, IPX

Encryption

64-bit/128-bit WEP
Passphrase key generation

Temperature

Operating: 0 to 50 °C (32 to 122 °F)
Storage: 0 to 70 °C (32 to 158 °F)

Humidity

5% to 85% (non-condensing)

Compliances

CE Mark
EN55022 Class B
EN55024
IEC 61000-42/3/4/6/11

Emissions

FCC Part 15 Class B
ETSI 300.328
ARIB STD33 and T66

TERMINOLOGY

The following is a list of terminology that is used in this document.

Access Point – An internetworking device that seamlessly connects wired and wireless networks.

Ad Hoc – An ad hoc wireless LAN is a group of computers each with LAN adapters, connected as an independent wireless LAN.

Backbone – The core infrastructure of a network. The portion of the network that transports information from one central location to another central location where it is unloaded onto a local system.

Base Station – In mobile telecommunications, a base station is the central radio transmitter/receiver that maintains communications with the mobile radio telephone sets within its range. In cellular and personal communications applications, each cell or micro-cell has its own base station; each base station in turn is interconnected with other cells' bases.

BSS – BSS stands for "Basic Service Set." It is an Access Point and all the LAN PCs that are associated with it.

CSMA/CA – Carrier Sense Multiple Access with Collision Avoidance.

ESS – ESS (ESS-ID, SSID) stands for "Extended Service Set." More than one BSS is configured to become an Extended Service Set. LAN mobile users can roam between different BSSs in an ESS (ESS-ID, SSID).

Ethernet – A popular local area data communications network, which accepts transmission from computers and terminals. Ethernet operates on a 10 Mbps baseband transmission rate, using a shielded coaxial cable or shielded twisted pair telephone wire.

Infrastructure – An integrated wireless and wired LAN is called an Infrastructure configuration.

Fragmentation Threshold – In the 802.11 Standard, the MAC Layer may fragment and reassemble directed MSDUs or MMPDUs. The fragmentation and defragmentation mechanisms allow for fragment re-transmission.

Preamble Type – Some access points and client card drivers have a radio setting for “Short” RF Preamble. If all the clients and access points in your wireless network have this feature, then enabling it can boost your throughput. However, if a radio does not support this feature, then it will not be able to communicate with any other radios that have this set to “Short.”

Roaming – A wireless LAN mobile user moves around an ESS and maintains a continuous connection to the infrastructure network.

RTS Threshold – Transmitters contending for the medium may not be aware of each other. RTS/CTS mechanism can solve this “Hidden Node Problem.” If the packet size is smaller than the preset RTS Threshold size, the RTS/CTS mechanism will NOT be enabled.

WEP – “Wired Equivalent Privacy” is based on the use of 64-bit or 128-bit keys and the popular RC4 encryption algorithm. Wireless devices without a valid WEP key will be excluded from network traffic.

FOR TECHNICAL SUPPORT, CALL:

From U.S.A. and Canada (24 hours a day, 7 days a week)

(800) SMC-4-YOU; Phn: (949) 679-8000; Fax: (949) 679-1481

From Europe : Contact details can be found on

www.smc-europe.com or www.smc.com

INTERNET

E-mail addresses:

techsupport@smc.com

european.techsupport@smc-europe.com

Driver updates:

http://www.smc.com/index.cfm?action=tech_support_drivers_downloads

World Wide Web:

<http://www.smc.com>

<http://www.smc-europe.com>

FOR LITERATURE OR ADVERTISING RESPONSE, CALL:

U.S.A. and Canada:

(800) SMC-4-YOU;

Fax (949) 679-1481

Spain:

34-91-352-00-40;

Fax 34-93-477-3774

UK:

44 (0) 1932 866553;

Fax 44 (0) 118 974 8701

France:

33 (0) 41 38 32 32;

Fax 33 (0) 41 38 01 58

Italy:

39 (0) 335 5708602;

Fax 39 02 739 14 17

Benelux:

31 33 455 72 88;

Fax 31 33 455 73 30

Central Europe:

49 (0) 89 92861-0;

Fax 49 (0) 89 92861-230

Nordic:

46 (0) 868 70700;

Fax 46 (0) 887 62 62

Eastern Europe:

34 -93-477-4920;

Fax 34 93 477 3774

Sub Saharian Africa:

216-712-36616;

Fax 216-71751415

North West Africa:

34 93 477 4920;

Fax 34 93 477 3774

CIS:

7 (095) 7893573;

Fax 7 (095) 789 35 73

PRC:

86-10-6235-4958;

Fax 86-10-6235-4962

Taiwan:

886-2-8797-8006;

Fax 886-2-8797-6288

Asia Pacific:

(65) 238 6556;

Fax (65) 238 6466

Korea:

82-2-553-0860;

Fax 82-2-553-7202

Japan:

81-45-224-2332 ;

Fax 81-45-224-2331

Australia:

61-2-8875-7887;

Fax 61-2-8875-7777

India:

91-22-8204437 ;

Fax 91-22-8204443

If you are looking for further contact information, please visit www.smc.com,
www.smc-europe.com, or www.smc-asia.com.

SMC®

Networks

38 Tesla

Irvine, CA 92618

Phone: (949) 679-8000

Model Number: SMC2671W

Revision Number E112003-R01 F 1.0

Part Number: 150000024600E